BREAKING ADVANCES

1775 Highlights from Recent Cancer Literature

REVIEWS

1777 Nerve–Cancer Cell Cross-talk: A Novel Promoter of Tumor Progression
Phillip Jobling, Jay Pandavella, Sonia M.R. Oliveira, Séverine Roselli, Marjorie M. Walker, and Hubert Hondermarck

1782 Amino Acid Transporters in Cancer and Their Relevance to “Glutamine Addiction”: Novel Targets for the Design of a New Class of Anticancer Drugs
Yangzom D. Bhutia, Ellappan Babu, Sabarish Ramachandran, and Vadivel Ganapathy

INTEGRATED SYSTEMS AND TECHNOLOGIES

1789 Molecular Portraits of Epithelial, Mesenchymal, and Hybrid States in Lung Adenocarcinoma and Their Relevance to Survival
Mark J. Schlielkelman, Ayumu Taguchi, Jun Zhu, Xudong Dai, Jaime Rodriguez, Muge Celliktas, Qing Zhang, Alice Chin, Chee-Hong Wong, Hong Wang, Lisa McFerrin, Shuli Liu, Hongyong Song, Shizhu Yu, Michael Kahn, Dong Yin, and H. Phillip Koeffler

MOLECULAR AND CELLULAR PATHOBIOLOGY

1801 Lung Tumor Suppressor GPRC5A Binds EGFR and Restrains Its Effector Signaling
Shuangshuang Zhong, Huajing Yin, Yueting Liao, Feng Yao, Qi Li, Jie Zhang, Huike Jiao, Yongxi Zhao, Dongliang Xu, Shuli Liu, Hongying Song, Yong Cao, Jingyi Liu, Lina Ma, Zhi Pang, Ruixu Yang, Chengyi Ding, Beibei Sun, Xiaofeng Lin, Xiaofeng Ye, Wenzheng Guo, Baohui Han, Binhua P. Zhou, Y. Eugene Chin, and Jiong Deng

1815 Genomic and Functional Analysis of the E3 Ligase PARK2 in Glioma
De-Chen Lin, Liang Xu, Ye Chen, Haiyan Yan, Masaharu Hazawa, Ngan Doan, Jonathan W. Said, Ling-Wen Ding, Li-Zhen Liu, Henry Yang, Shizhu Yu, Michael Kahn, Dong Yin, and H. Phillip Koeffler

Précis: An E3 ligase that targets both EGFR and β-catenin for destruction may offer a rational new theranostic target in the most deadly form of adult brain cancer.

1828 Spatially Resolved Metabolic Phenotyping of Breast Cancer by Desorption Electrospray Ionization Mass Spectrometry

Précis: In evaluating a new mass spectrometry-based tool to analyze breast tumor tissues, this study shows how it can rapidly infer tumor grade and hormone receptor status from the metabolic profile of fresh frozen sections of resected specimens.

1838 CDK4/6 Inhibitor PD 0332991 Sensitizes Acute Myeloid Leukemia to Cytarabine-Mediated Cytotoxicity
Chenyi Yang, Cynthia A. Boyson, Maurizio Di Liberto, Xiaogao Huang, Jeffrey Hannah, David C. Dorn, Malcolm A.S. Moore, Selina Chen-Kiang, and Pengbo Zhou

Précis: These findings have immediate clinical implications for the potential treatment of elderly patients with acute myeloid leukemia who are unable to tolerate standard high-dose regimens of Ara-C drug therapy.

1846 Aberrant Expression of proPTPRN2 in Cancer Cells Confers Resistance to Apoptosis
Alexey V. Sorokin, Binoj C. Nair, Yongkun Wei, Kathryn E. Aziz, Valentina Evdokimova, Mien-Chie Hung, and Junjie Chen

Précis: These results define a little studied protein tyrosine phosphatase receptor as a novel candidate biomarker and therapeutic target in cancer.
PREVENTION AND EPIDEMIOLOGY

1859  
miR-21 Inhibition Reduces Liver Fibrosis and Prevents Tumor Development by Inducing Apoptosis of CD24+ Progenitor Cells
Jing Zhang, Jingjing Jiao, Silvia Cermelli, Kyle Muir, Kwang Hwa Jung, Ruhai Zou, Asif Rashid, Mihai Gagea, Sonya Zabludoff, Raghu Kalluri, and Laura Beretta

Précis: These findings highlight the function of a widely studied oncomiR in the survival of CD24+ tumor-initiating cells and reduced liver fibrosis.

THERAPEUTICS, TARGETS, AND CHEMICAL BIOLOGY

1868  
Histone Deacetylase Inhibitors Repress Tumoral Expression of the Proinvasive Factor RUNX2
Valentina Sancisi, Greta Gandolfi, Davide Carlo Ambrosetti, and Alessia Ciarrocchi

Précis: These findings offer evidence that the cytotoxic activity of HDAC inhibitors against cancer cells relies not only on reactivating silenced tumor suppressor functions, as widely thought, but also on silencing oncogenes that drive cell survival and malignant progression.

TUMOR AND STEM CELL BIOLOGY

1883  
RSPO2 Enhances Canonical Wnt Signaling to Confer Stemness-Associated Traits to Susceptible Pancreatic Cancer Cells
Matthias Ilmer, Alejandro Recio Boiles, Ivonne Regel, Kenji Yokoi, Christoph W. Michalski, Ignacio I. Wistuba, Jaime Rodriguez, Eckhard Alt, and Jody Vykoukal

Précis: These results show how blocking a stemness-promoting pathway in conjunction with established chemotherapy could help disrupt dynamic cancer stem-like cell processes and present novel therapeutic targets and strategies.

CORRECTION

1922  
Correction: PTEN Loss Contributes to Erlotinib Resistance in EGFR-Mutant Lung Cancer by Activation of Akt and EGFR
ABOUT THE COVER

GPRC5A was repressed, while EGFR was dysregulated, in inflammatory lung tissues (n = 10) in comparison with those in normal lung tissues (n = 10). The inverse correlation between EGFR and GPRC5A was complete, without one exception. IHC staining for GPRC5A in human inflammatory lung tissue is shown in the representative image. For details, see article by Zhong and colleagues on page 1801.